SATURDAY, JUNE 14, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF HYDROTHORAX IN WHICH PARACENTESIS WAS PERFORMED.

Delivered at the Philadelphia Hospital, May 31, 1873,

BY WILLIAM PEPPER, M.D.

(Continued from page 563.)

GENTLEMEN:—As I before said to you, the only plausible explanation of the fact that the pleural effusion in this case of suspected cirrhosis of the liver is limited to the right side is to be found in the peculiar condition of the lungs and heart. A very careful examination of these was made on May 20, with the following results:

The *right* thorax was markedly distended, with slightly bulging intercostal spaces. The respiratory movements of this side were almost entirely abolished. There was absolute flatness upon percussion, extending from the lower line of liver dulness up to the second rib, above which there was sub-tympanitic resonance. Respiratory murmur was almost entirely absent over this area of dulness, nothing being heard but feeble and distant bronchial breathing. Over the clear area at the apex there was rude broncho-vesicular breathing. Vocal resonance and fremitus were almost annulled. On placing the fingers of the left hand in the fourth, fifth, sixth, and seventh costal interspaces of the right side, and percussing sharply over the uppermost finger, a feeble but distinct sense of fluctuation was perceived by the lower fingers. This was best observed when the patient was sitting.

The respiratory movements of the *left* thorax were exaggerated; there was no bulging of the intercostal spaces, but, on the other hand, during each inspiration there was a marked retraction of the soft tissues in the lower interspaces, and of the epigastrium. Percussion-resonance was everywhere normal. The respiratory murmur was clear throughout, with some coarse, moist crackling at the lower part of the posterior surface.

The position of the apex-beat of the heart varied with the respiratory movements. In the recumbent posture, it descended during full inspiration to the sixth interspace, about three-fourths of an inch to the left of the left nipple; while during expiration it rose to the fifth, and finally to the fourth interspace, just within the line of the left nipple.

With each systole of the ventricles there was distinct retraction of the nipple and soft tissues immediately surrounding it; this was most marked during expiration, evidently because the nipple shared in the general retraction of the lower intercostal spaces which took place with inspiration. The retraction of the nipple was, however, quite distinct from this latter respiratory retraction. There was no præcordial thrill, nor any pericardial friction-sound. The heart-sounds were free from murmur; the first being indistinct and feeble, the second somewhat duller than normal. The sounds were also at times reduplicated. This reduplication was intermittent and irregular, being wholly absent from certain beats, affecting only the second sound, or again presenting itself as a repetition of both cardiac sounds without any corresponding radial pulsation. The relations of this reduplication to the respiratory rhythm were difficult to determine. In the majority of beats it presented itself merely as a splitting of the second sound, and this occurred both with inspiration and expiration; and then, at irregular intervals, and this usually during inspiration, there was a reduplication of both sounds. The *deep area of cardiac dulness* extended from the lower border of the third interspace downwards to the sixth interspace, and from just within the left border of the sternum outwards to half an inch to the left of the nipple-line. The *pulse* was irregular in frequency, rhythm, and force, but without dichrotism or any quick, small beats (so often met with in cases of irregularity of mitral origin) corresponding with the reduplicated heart-sounds. There was moderate distention of the jugular veins, but no distinct collapse of these vessels attended inspiration.

During the early part of May there had been several rather alarming attacks of dyspnœa, with feeble and tumultuous action of the heart, which had subsided in a few hours; but on May 20 there was an attack of most threatening character, attended with terrible increase of dyspnœa, general venous congestion, lividity of face and hands, and extremely feeble, irregular action of the heart. The prompt administration of repeated large doses of digitalis and whisky seemed to rescue him from impending death; but it was two days before he recovered from the shock.

Fearing a repetition of such an attack, I determined to perform paracentesis, and on May 24, the patient sitting in a chair, I made a small incision through the derm over the sixth rib about 1½″ outside of the right nipple-line, drew the skin downwards so that the incision corresponded to the sixth interspace, and introduced a fine canula with a needle-point into the pleural cavity. An aspirator was attached to this (a small air-pump with a barrel holding about two fluidounces, and with a ball-valve so arranged in its nozzle that on being rotated in one direction by a little handle a communication is made between the canula and the barrel of the pump, while, when the valve is reversed, this communication is closed, and the barrel is connected with a lateral outlet, through which its contents can be forced by pushing the piston home). By gently working this, I succeeded in drawing off one hundred and sixteen (116) fluidounces of clear, pale, straw-colored serum without the entrance of any air to the pleural cavity. The effects of this were immediate and gratifying: the respiratory movements of the right side returned, and percussion became resonant down to the sixth rib. At this point the exhaustion of the patient compelled us to discontinue while yet there was evidently more fluid in the pleural sac (probably not less than thirty fluidounces). The right lung expanded promptly, and vesicular murmur with coarse, dry, crackling sounds was heard over the chest. The apex-beat of the heart returned to within the left nipple-line, but its position seemed comparatively little influenced by the withdrawal of so large an amount of fluid from the right pleural cavity. The canula was withdrawn, the incision closed by an adhesive strip, the entire right thorax surrounded by broad adhesive strips passing from the sternum to the spine, and the patient returned to bed, feeling relieved and easy.

Since that time—just one week—he has continued to feel much better. He eats well and sleeps comfortably. There has been no perceptible return of the pleural effusion, and the very slight effect of the operation itself upon his general condition may be judged from the following statement:

		Pulse.	Temperature.
May 24,	at 8 P.M.	97 (regular)	100 3-5°
" 25,	12 M.	66 (intermitt.)	98 1-5°
" "	4 P.M.	64 (intermitt.)	99 2-5°
" "	8 P.M.	80 (regular)	99 1-5°

		Pulse.	Temperature.
May 26,	at 6 A.M.	73 (intermitt.)	98°
" "	12 M.	97 (regular)	99°
" "	6 P.M.	98 (regular)	99 1-5°
" 27,	6 A.M.	73 (intermitt.)	98°
" "	6 P.M.	86 (regular)	99°
" 28,	6 A.M.	75 (intermitt.)	98 1-5°
" "	6 P.M.	88 (regular)	97°
" 29,	6 A.M.	78 (intermitt.)	96 4-5°
" "	6 P.M.	86 (regular)	99 4-5°
" 30,	6 A.M.	75 (intermitt.)	98°
" "	6 P.M.	70 (intermitt.)	99°

I have placed him upon the use of iodide of potassium gr. v, with acetate of potassa gr. xv, thrice daily; and atropia gr. $\frac{1}{60}$, thrice daily, for its controlling action on the heart as well as for its diuretic power. I may add that careful percussion now shows that the area of hepatic dulness is materially decreased.

The evidence of a large effusion in the right pleural sac was clear enough here. The chest was too full to allow alterations in the patient's position to make much difference in the line of percussion dulness; but the dulness was of that peculiarly dead, flat type, with complete loss of elasticity, which is characteristic of large effusions, and rarely met with in mere consolidation of the lung. The vesicular murmur was absent over the dull area, and vocal resonance and fremitus were almost abolished. I do not attach so much importance to the auscultatory signs of large pleural effusions as to the other phenomena, since it happens often enough that vocal and respiratory sounds closely simulating those due to consolidation will be heard over the seat of the effusion, but due to transmission from the bronchi in the compressed lung. It is true that careful examination will usually detect their real origin; but no misinterpretation can well be placed upon the other signs, when we have the peculiar absolute flatness above referred to (often varying with altered positions of the patient's body), distention of the side with prominence of the intercostal spaces, and dislocation of the heart from pressure, all of which were present in this case. I have already mentioned an additional sign here detected, which is more rare: the sense of fluctuation detected by palpation in the lower intercostal spaces, or by percussing sharply on one finger placed over an intercostal space, while the other fingers are placed over the subjacent spaces to detect the fluctuation.

I will now invite your special attention to the signs furnished by the left side of the chest and the heart; and I believe that, after considering them, you will be inclined to think with me that our patient has both adherent pleura and pericardium. On questioning him closely, I find that in 1845, when he first suffered from symptoms of heart-disease, he had a severe attack of "inflammation of chest and heart," with much pain, which confined him to his bed for many weeks. Since then he has had several recurrences of severe pain about the heart and over the left thorax, with fever, and such general disturbance as to confine him to the house for several weeks. In the absence of any valvular lesion of the heart, this history certainly seems to point towards the occurrence of rheumatic pericarditis complicated with pleurisy. There are no friction-sounds now audible, but there are other reasons for adopting the view I have expressed. I do not think it likely that the heart would so closely follow the lung in its movements as to present a change in the position of the apex-beat from the sixth to the fourth interspace, unless there were adhesions between the pericardial and pulmonary pleura.

And again, the peculiar retraction of the lower intercostal spaces and of the epigastrium during inspiration, and that of the nipple attending the systole of the ventricles, are very significant signs of the presence of both pleuritic and pericardial adhesions. Add to this the positive increase in the area of cardiac dulness, without any valvular lesion, and note that this area is scarcely influenced by the stage of respiration. It is true that there is not the præcordial thrill which is felt in some cases of adherent pericardium, and that the moderately distended jugular veins present no collapse simultaneous with the diastole of the ventricles (which Friedreich has shown to occur in some cases of this lesion); but there are few conditions whose signs are more variable than this, and I believe that the phenomena which are here presented admit of no other satisfactory explanation. And I would suggest that it may be in consequence of the existence of such general pleuritic and pericardial adhesions that the pleural effusion has been limited to the right side, while on the left we find no evidence of free fluid in the pleural sac, but, on the contrary, the coarse, moist, crackling râles of congestion and œdema of the lung-tissue. I have on a good many former occasions had the opportunity of observing how, when a cause predisposing to general dropsy exists, and while one lung is free from adhesions, the other is tightly adherent, free serous effusion takes place on the one side, and is represented on the other by œdema of the lung-tissue and of the pleuritic adhesions.

I will, before speaking finally of the operation of paracentesis itself, allude to the bearing which its results had upon the diagnosis of this case. In the first place, the character of the fluid withdrawn was entirely in favor of the view that the hydrothorax was passive and not inflammatory in its origin. The canula encountered no difficulties from false membranes, no floating flocculi of lymph arrested the escape of liquid from time to time, and the fluid itself was singularly clear, light-colored, and free from spontaneously coagulable elements. All these points mark the difference between simple dropsical effusions in the pleura and those which depend upon inflammation of the membrane. Again, the withdrawal of the fluid enabled us to demonstrate what could not be definitely determined before, owing to the simultaneous presence of ascites and hydrothorax,—that the liver has undergone contraction, which, of course, is the most conclusive evidence in favor of the view that the initial lesion in this complicated case was *cirrhosis of the liver*.

The indications for the operation which has been performed here merit a moment's attention. It is unfortunately true that it can be regarded in this case as a palliative measure merely, and by no means as expected to permanently relieve the hydrothorax. There is, indeed, every reason to fear that, when a constant and probably incurable cause exists for the

production of the dropsy, it will but too surely and speedily recur. As a consequence, it would seem but proper to require the presence of far more urgent indications for paracentesis in such instances than would justify its performance in cases, as of subacute idiopathic pleurisy, where we might hope that it might effect a cure. It is of course difficult to formulate the principles which must guide us as to the use of this operation, but I would suggest the following rules as sanctioned by eminent authorities and approved by my own experience. In cases of simple pleuritic effusion, reaching up to the second or third interspace, so long as no urgent interference with respiration or circulation occurs, the operation should not be resorted to until a faithful and prolonged trial has been made with internal remedies and external applications to promote the entire absorption of the fluid. In case such treatment proves unavailing, and either the effusion begins to increase or the patient's strength begins to fail seriously, the operation is *justified*. In case evidences of the occurrence of purulent discharge from the pleural surface, gradually converting the hydrothorax into an empyema, should present themselves, the operation is usually *called for*, without regard to the presence of urgent symptoms of respiratory or circulatory embarrassment. In cases where the hydrothorax is due to some mechanical or at least non-inflammatory cause, as often happens in renal, hepatic, and cardiac disease, there is but little danger of the development of empyema, and the indications for paracentesis are based exclusively upon the interference with the action of the lungs and heart caused by the effusion. Whenever, finally, from whatever cause the hydrothorax proceeds, the amount of effusion has increased until respiration and circulation are constantly and alarmingly disturbed, as shown by rapid, feeble, irregular pulse, œdema of the feet, hurried, shallow breathing, lividity of the face and hands; or whenever, no matter what the *constant* amount of such disturbance may be, there are occasional paroxysms of violent dyspnœa, with great irregularity and weakness of the heart's action, the performance of paracentesis is imperatively demanded. I say this because, in such cases of extensive pleural effusion, sudden death is by means uncommon, and such patients live in constant danger of a rapid increase of the effusion to a fatal extent, or of an unusually violent paroxysm, in which the fatal result may occur.

You will remember how alarming was the attack which this patient suffered on May 20; and you will readily perceive the extreme danger that a repetition of such a paroxysm would have proved instantly mortal. Having failed to afford him any material relief by internal medication, I did not feel justified in exposing him to such danger, and therefore tapped his chest so soon as he had sufficiently reacted from the paroxysm. The operation itself is a very simple one. The effects of the entrance of air into the pleural cavity have doubtless been exaggerated; but still, in all cases where there is reason to believe that the effusion is merely serous, it is desirable to withdraw the fluid without permitting such a result. And this can be readily effected by puncturing the chest-wall with a needle-pointed canula furnished with an india-rubber tube, by means of which the effusion can be conducted below the surface of water in some suitable vessel, and thus allowed to escape without the possibility of air entering. Or we may secure the same results by the use of Bowditch's syringe, or the aspirator, both of which work on the plan before described. The rate at which the fluid is withdrawn must vary with the character of the fluid, and the condition in which the lung is supposed to be. If the collection is a purulent one, it had better be withdrawn through a quite large canula; since it will probably be necessary to insert a canula to be worn continuously for some time. If the effusion be serous, but the result of active inflammation, it should be drawn off through a very fine canula, so that the lung which is, in all probability, bound down by adhesions, may gradually expand and fill the space left by the fluid; for, if this be withdrawn too rapidly, there is such strong suction that it is difficult to prevent the entrance of air along the sides of the canula into the chest. In cases such as the present, where the effusion is the result of a passive dropsy, the lung is in all probability free to expand, and the fluid may safely be withdrawn, as I did it, with moderate rapidity and through a medium-sized canula.

There is no after-treatment required in such operations. The table of the pulse and temperature of this patient during the week immediately succeeding the tapping shows how little constitutional disturbance follows its performance. In the present case I surrounded the right thorax with strips of adhesive plaster, to prevent the ribs from expanding more freely and rapidly than the compressed lung could be inflated, and I certainly succeeded in securing the withdrawal of a large quantity of fluid and very free expansion of the lung without the production of any pneumothorax.

The tendency to a return of the effusion after paracentesis varies infinitely with the cause, the condition of the pleura, the constitution of the patient, and the mode of performance. I cannot, at this time, attempt to discuss the details of this point, particularly as our patient illustrates the fact that in not a few cases the urgency of the symptoms compels the performance of the operation without reference to the liability of the return of the effusion. Unfortunately, I cannot hope for a long respite from this result in the present case; but, even if the serum reaccumulate in the course of some weeks or months, the operation will have been successful in affording him marked temporary relief, and freedom from the danger of sudden and painful death.

Postscript, June 10.—Up to the present date, seventeen days after the operation, the same marked relief continues; the heart's action is slow (65 to 70) and more regular. The effusion has certainly increased, but only to a slight degree; and the patient is able to walk about quite freely, and has even left the hospital on a pass; though he is easily over-fatigued.

ORIGINAL COMMUNICATIONS.

ABSCESS OF THE LARYNX IN YOUNG CHILDREN.

BY JOHN S. PARRY, M.D.,

Attending Accoucheur to the Philadelphia Hospital, Vice-President of the Obstetrical Society of Philadelphia, etc.

THE term abscess of the larynx is used here, not because the writer believes it to be entirely appropriate to the condition which it is proposed to describe, but simply for the want of a better name. The disease to which it is applied is a rare one, and, so far as the writer is aware, the peculiar train of symptoms accompanying it have never been described, unless, indeed, it has been mistaken for retro-pharyngeal abscess. Two cases have come under my notice, one of which terminated in recovery, the other in death. Both occurred in the wards of the Philadelphia Hospital.

Case I.—John I., aged 4½ months, a negro, well nourished, and wet-nursed by his mother, who is a healthy woman. On my visit to the ward on Tuesday morning, she called attention to the child, stating that he had been irritable and cross for two or three days. He had not nursed well, though she did not observe any difficulty in swallowing. During the preceding day he had suffered from difficulty in breathing, with noisy inspiration, and total inability to swallow.

At the time of the examination he was lying upon his mother's lap, with his head thrown back. The muscles of the back of the neck were rigid. His eyes were prominent. Respiration was exceedingly laborious, and was attended with vigorous movements of the alæ nasi. Inspiration was long, difficult, and stridulous. During inspiration the base of the thorax was surrounded by a transverse constriction. This disappeared during expiration, which was easy and noiseless. The voice was almost whispering, and his cry almost suppressed. The dyspnœa was so great as to prevent any attempt at crying or moving. His whole object was to breathe. He had no cough. The larynx was thrust forward so as to form a decided tumor in the neck. The anterior margin of the thyroid cartilage was sharply defined. There was some swelling upon either side of the larynx, at the posterior margin of the thyroid cartilage. It did not fluctuate. The examination gave rise to pain and uneasiness, but did not increase the dyspnœa. The boy was totally unable to nurse or to swallow either fluids or soft solids.

The chest was resonant on percussion. No râles could be heard in any part of it. The respiratory murmur was scarcely audible.

His tongue was furred, and the mouth filled with mucus. A careful inspection of the pharynx revealed no disease, and an examination with the finger showed that there was not a retro-pharyngeal abscess. The epiglottis and parts around were examined with the finger and did not appear to be œdematous. This greatly increased the dyspnœa, and nearly cost the child his life.

The patient was carefully watched, with directions not to allow him to die without the operation of tracheotomy having been performed. Warm poultices were applied to the throat to favor suppuration, under the impression that there was an abscess behind the larynx.

During the succeeding two days his condition did not improve. The prominence of the larynx increased, while the swelling extended from behind forwards. At this time it was thought that there was slight fluctuation near the median line, over the thyroid cartilage. An incision was made from the superior to the inferior margin of this, directly in the median line, and nearly two fluidrachms of thick yellow pus flowed out. The larynx immediately receded, all swelling disappeared, the intense dyspnœa and dysphagia ceased at once. From that moment recovery commenced, and the boy did not have a single symptom of disease afterwards.

Case II.—J. G., aged 9 weeks, was born in the Philadelphia Hospital. Immediately after labor his mother suffered from puerperal fever. The child was healthy when born, but when less than a week old he was attacked with erysipelas of the buttocks, which gradually spread upward until the whole of the body and head were affected. This was followed by an abscess situated over the upper part of the occipital bone, near the posterior fontanelle. The contents of this were withdrawn by the aspirator twelve days before the present disease began, and again ten days before. The abscess immediately refilled, and it was opened with a knife three days ago. The erysipelas exhausted the child greatly, but during the last month he has been improving.

The present illness began suddenly ten days ago, with what the mother calls "wheezing in his throat." This was accompanied by some swelling about the larynx, and some noise in breathing. These symptoms continued until last evening, when the mother called Dr. Stone's attention to the child for the first time.

Present condition.—He is poorly nourished, but his general appearance is better than would be expected in an infant who had been so long and so seriously ill. His face is pale; the vessels of the neck and scalp are distended. He lies with his eyes half closed and his head thrown back, as in commencing opisthotonos. The muscles on the back of the neck are rigid and tense.

The alæ nasi move rapidly in breathing. The external muscles of respiration are called into use, those of the neck acting violently. The sternum is arched forward. During inspiration the convexity of this bone is increased, and a deep gutter appears around the base of the chest, on a line with the ensiform cartilage. During expiration this disappears, so that the thorax is actually larger during the expiratory than during the inspiratory act. The breathing is irregular, from forty to fifty times per minute. Inspiration is extremely difficult, is prolonged, and is attended with a sharp stridulous sound which can be heard all over the ward. Expiration is easy and noiseless. The child coughs but little. The sound is hoarse, broken, and tends to become whispering. The cry is nearly suppressed, but the aphonia is not quite complete.

The thorax is everywhere resonant on percussion, and auscultation reveals no evidences of disease of the lungs. The respiratory murmur is inaudible. The laryngeal sound is heard by transmission over the whole of the surface of the chest.

Physical examination of the pharynx reveals no tumor. The finger passes down behind the larynx. The epiglottis can be distinctly felt, and there seems to be a little puffiness upon either side of its base. The examination produced much uneasiness, and was followed by profound dyspnœa.

The larynx is thrust forward so as to produce a decided prominence on the anterior surface of the neck. There is some swelling just over the posterior margins of the thyroid cartilage. No fluctuation can be detected. The examination causes pain.

The tongue is furred, the mouth filled with dense opaque mucus, stomach irritable, and bowels constipated. He has considerable difficulty in swallowing, and cannot nurse at all.

The pulse is weak, irregular, and from 140 to 160 per minute. The irregularity occurs during inspiration.

He continued to grow worse during the succeeding night, and died the next day of dyspnœa.

Post-mortem.—The pharynx was perfectly healthy. The larynx was removed with the tongue and upper part of the trachea. The anterior aspect presented the following appearances: In the middle line and a short distance to either side, bounded by the inner border of the sterno-thyroid muscles, there was distinct fluctuation. Posteriorly to the outer margins of the same muscles, and upon either side, were other fluctuating swellings. The two projections communicated, and an impulse was transmitted from the surface of one to all the others.

The epiglottis was erect, thin, and pale. The cavity of the larynx was nearly obliterated; it contained no false membrane, and the mucous membrane was pale and healthy. Immediately without the epiglottis, between its base and the superior inner margin of the thyroid cartilage, were two fluctuating swellings, one upon either side. These compressed the epiglottis so that its lateral margins were nearly in contact and likewise nearly obliterated the rima glottidis. Fluctuation was communicated from these swellings to those on the sides and the centre of the anterior outer surface of the organ.

Upon making an incision in the median line, over the prominence of the thyroid cartilage, more than two drachms of thick yellow pus flowed out. The fluctuating prominences on the exterior and interior of the larynx immediately collapsed, and the cavity of the organ was restored to its natural size. A probe could be passed through the incision backwards, and around the posterior margins of the thyroid cartilage, upon either side, so as to put the mucous membrane of the interior of the larynx upon the stretch at any point.

The perichondrium was separated from the thyroid cartilage upon both its inner and outer surfaces. Both surfaces of the cartilage were eroded and rough, while its tissue was softer than it is when healthy. The cricoid cartilage was perfectly healthy. The other organs of the body were healthy.

These two are the only examples which I have met with of what must be a rare disease of the larynx in children. Only one author upon the diseases of children, whom I have consulted, has anything to say upon the subject. This is Vogel,* who speaks of "abscesses of the larynx" as a complication of typhoid fever in children. He states, however, that he has never met with an example of the disease. His description of the symptoms is very vague, and is not sufficient to warrant us in concluding that he alludes to the condition which has been described. Niemeyer† and Wood‡ speak of a somewhat similar condition under the name of "Laryngeal Perichondritis," but neither author details the symptoms with sufficient care to make the diagnosis easy. Porter§ has a chapter on "Abscesses around the Larynx," and Rühle‖ describes the condition in adults, but has nothing to say about abscess of the larynx in children.

In both of these children the symptoms were well marked, and could not but attract the notice of even a careless observer. The terrible dyspnœa, the distressed face, the dysphagia, the stridor, which could easily be heard over a large room, immediately attracted attention. It is not at all improbable that some of the cases recorded as post-pharyngeal abscess have really been abscess of the larynx. In certain particulars the symptoms of the two diseases are strikingly alike. In both there is dyspnœa with dysphagia, and, according to Fleming,¶ Allin,** West,†† Vogel,‡‡ and Smith,§§ there is retraction of the head. Relying upon the rational symptoms alone, retro-pharyngeal abscess would probably have been diagnosticated in both of the children whose histories have been related in this paper; but upon making a physical examination of the pharynx, no swelling could be detected in the locality in which this variety of abscess usually projects. This will at once enable the physician to distinguish between the two diseases, while the projection of the larynx anteriorly with induration at the posterior margin of the thyroid cartilage would direct attention to the larynx.

In both cases the symptoms resembled those of œdema of the larynx in adults. The physical examination likewise enabled us to exclude this; for the epiglottis could be felt, thin and healthy, below the root of the tongue. Besides, œdema glottidis is observed "almost exclusively among grown persons."‖‖‖‖ It is doubtful whether it can occur in children as young as these. Moreover, œdema is attended with violent paroxysms of suffocation, such as occur in croup and other laryngeal diseases. In both these children the intensity of the symptoms was steadily progressive from the commencement of the inflammation until the recovery of the one and the death of the other.

Pseudo-membranous laryngitis is another disease which the one we are discussing resembles. They have in common an insidious beginning, are both attended with great dyspnœa, stridulous breathing, and contraction of the base of the chest during inspiration. But in pseudo-membranous laryngitis the head is not thrown back, the dysphagia is absent, the larynx is not thrust forward, and there is no induration at the posterior margins of the thyroid cartilages. In both of the histories which have been related in this paper it is specially noted that expiration was not difficult, and was noiseless. Jacobi, of New York, in an able paper on croup¶¶ has called attention to the fact that in that disease both inspiration and expiration are impeded. Since our attention was directed to this as a diagnostic sign of pseudo-membranous laryngitis, we have not met with a single exception to the rule; and, unfortunately, the wards of the Philadelphia Hospital have furnished a number of opportunities to verify the diagnosis by a post-mortem examination.

Meigs and Pepper*** attach much importance to the depression or sulcus about the base of the chest in true croup. This is of no value whatever in dis-

* Diseases of Children, 8vo, N.Y., 1870, p. 186.
† Practice of Medicine, 8vo, N.Y., 1869, p. 49
‡ Practice of Medicine, 8vo, Phila., 1858, vol. i. p. 187.
§ Surg. Path. of the Larynx and Trachea, 8vo, London, 1837, p. 124.
‖ Kehlkopfkrankheiten, p. 162.

¶ *Dublin Quar. Jour. Med. Sci.*, Feb. 1850.
** *New York Jour. of Med.*, Nov. 1851.
†† Diseases of Children, 8vo, Phila., 1868, p. 472.
‡‡ Diseases of Children, 8vo, N.Y., 1870, p. 121.
§§ Diseases of Children, 8vo, Phila., 1869, p. 322.
‖‖ Niemeyer, Practice of Medicine, 8vo, N. Y., 1869, vol. i. p. 47; and Flint's Practice of Medicine, 8vo, Phila., 1866, p. 231.
¶¶ *American Journal of Obstetrics*, May, 1868, p. 22.
*** Diseases of Children, 8vo, Philadelphia, 1870, p. 93.

tinguishing the disease which is being described from pseudo-membranous laryngitis. We have never seen the symptom more marked in fatal cases of that disease than it was in both of the children whose histories have been related.

In relation to the nature of the affection we have but little to say. Whether it commences as inflammation of the perichondrium or the sub-mucous cellular tissue is uncertain. It is hardly the latter, for the same reason that œdema of the glottis is rare in infants.

Treatment.—The prognosis of this disease of the larynx is evidently very serious, and to save the patient the treatment must be prompt and efficient. As soon as it is suspected, the child must be carefully watched. In the first case a free incision from the upper to the lower margin of the thyroid cartilage was followed by instantaneous relief and complete recovery. In the second the same result would probably have followed if we had boldly plunged the bistoury in. If the abscess can be opened in the median line, it should be done; and if not, the incision must be made upon a line with the posterior border of the thyroid cartilage, though it is true that in this locality some care has to be exercised, as the incision has to be made close to large vessels.

If this does not give relief, only one course is open,—that is, to perform tracheotomy, with the hope that the life of the patient may be prolonged until the pus is discharged. Any one who has seen a case of this kind can have no doubt in regard to the propriety of such a proceeding.

It is not difficult to conceive that this operation might be demanded in the latter stages of the disease and after pus had been discharged on account of the serious disease of the thyroid cartilage.

1513 Arch Street, Philadelphia.

TRANSLATIONS.

ON THE RADICAL CURE OF CERTAIN FORMS OF LACHRYMAL TUMOR BY MEANS OF PARTIAL EXCISION OF THE SAC, METHODICAL CATHETERIZATION, AND INJECTIONS OF THE SULPHITE OF SODA.

BY DR. MONOYER,

Professor *agrégé* of the ancient Faculty of Medicine of Strasbourg, in charge of the course and of the clinique of ophthalmology in the Faculty of Medicine of Nancy.

Translated by Dr. H. Culbertson, of Zanesville, Ohio, from the *Archives Générales de Médecine*, January, 1873.

NOTWITHSTANDING the multiplicity of modes devised for the cure of lachrymal tumor, and the incontestable progress realized by Mr. Bowman, in 1857, in the surgical therapeutics of this form of ocular disease, lachrymal tumor continues none the less to discourage some practitioners, from the duration, and in many cases the inefficacy, of treatment. Only those who have kept their patients in view for a considerable time can say how many permanent cures they have obtained, and above all how many cures with re-establishment of the lachrymal passages; successes are still more rare when the cases are chronic and complicated.

Among complications there is one particularly rebellious to treatment: we refer to relaxation of the sac, with or without hypertrophy of its walls. Authors recommend, almost exclusively, compression to overcome dilatation of the sac; but I do not know that this mode has ever succeeded, at least when the anterior wall is considerably hypertrophied. We have been so fortunate as to obtain in two cases of this character, by the aid of a proceeding entirely different from that which has just been indicated, a double success, equally remarkable for the brevity of the treatment and for the perfection of the final result. Accordingly, we shall, we believe, be of service both to science and to the sick, by reporting in all their details the histories of the cases in question. We will follow our narrative with certain reflections adapted to make apparent the points which constitute the new part of the treatment employed under these circumstances.

Case I.—*Lachrymal tumor with dilatation and hypertrophy of the walls of the sac (hypertrophic dacryo-cystectasis); stricture at the inferior orifice of the nasal canal; partial excision of the sac; methodical catheterization by the incised superior lachrymal canal; injections of the sulphite of soda; rapid and radical cure, with re-establishment of the natural passages.*

Rosine B., born and living at Baccarat (Meurthe), aged 38 years; married; without occupation; of good constitution, and of nervous temperament; presented herself, February 4, 1867, at the ophthalmic clinic of the faculty of medicine of Strasbourg, to be cured of a lachrymal tumor.

History.—The patient has always enjoyed good health; she has been affected, since childhood, with lameness of the left leg; there is deformity of the hip of the same side. She menstruates regularly every three weeks, and has never borne children. Two years since she observed a tumor at the inner angle of the left eye; small at first, it has constantly increased in size. At first it was possible, by compressing it with the finger, to make it disappear entirely, even for several days, its liquid contents escaping by the nasal canal into the nasal fossæ; but for four months past it has been impossible thus to completely empty the tumor. Its development was preceded by epiphora.

The patient has been treated on various occasions. Dr. Mouginot, of Lunéville, gave her, one year since, by the inferior lachrymal punctum, and with an Anel's syringe, injections of tepid water, which the patient's husband, a glass-maker, learned to administer with great dexterity, and with which he persevered for some time, but without success. Injections of nitrate of silver, in aqueous solution, were no more efficacious, and had no other result than to induce inflammation of the tumor. An injection of Labarraque's solution, *undiluted*, made three months ago, under the advice of another practitioner, was also followed by intense inflammation, accompanied with acute pain. From this date the contained liquid which escaped from the tumor when it was compressed had a most fetid odor and taste, nor did injections of Labarraque's solution, diluted with water, which were subsequently employed, suffice to remove its offensive character; the epiphora continued incessantly. In the mean time the patient came to Strasbourg.

Present condition.—Immediately below the internal angle of the left eye, the skin, which is slightly red, is raised up by a tumor of the form and size of a medium-sized hazel-nut, and a little elongated. The tumor measures in its greatest length about one centimetre and a half, and its breadth is one centimetre; its great axis is not vertical, but follows the course of the lower border of the orbit. By pressing with the finger in a

direction from above downwards, it is possible to partially empty the sac, which is made evident by a very notable diminution in the tension of its walls; but the tumor does not entirely subside, and continues of the same apparent volume; the contents, which are made to flow out by pressure, escape by the nasal canal into the corresponding nostril, and thence into the pharynx, where, in consequence of their fetid character, they disagreeably affect the taste and smell of the patient. If, during these pressure-manœuvres, a drop of muco-pus sometimes flows backwards through the inferior lachrymal punctum, nothing whatever passes by the superior.

On touching with the index finger the tumor, previously emptied as much as possible, there is felt the sensation of a small body, having the form and consistency of a tarsal cartilage, beginning on a level with the entrance of the nasal canal and extending along the orbital border more than a centimetre; its thickness vertically is estimated at not less than two millimetres; its dimensions in an antero-posterior direction cannot be determined. This body seems to extend backwards, becoming gradually thinner, and to be attached to the osseous wall of the orbit; its mobility, however, is considerable.

Refilling now the lachrymal sac gradually, by the aid of an Anel's syringe, I continue to perceive the small body at the inferior part of the tumor, forming, so to speak, an integral part of the walls of the sac itself, until the excess of tension, the result of the too great accumulation of liquid (55 divisions of Pravaz's syringe could be injected), prevents the depression of the tumor, and thus hinders palpation. Anel's probe can be passed into the tumor through either lachrymal punctum, but cannot be made to penetrate more than two centimetres, at which depth there is felt a membraniform obstacle; by sounding in all directions the absence of caries is determined. The probe appeared to pass behind the little body we have described, which was composed of nothing more than the folds formed by the superior and inferior walls of the lachrymal sac, considerably hypertrophied and brought closely together by the pressure of the finger. If I lay great stress upon the sensation of a foreign body perceived in our patient, it is because, not being mentioned by any author, it might give rise to an error in diagnosis; for us, on the contrary, it indicates relaxation with hypertrophy, more or less marked, of the walls of the lachrymal sac, as we were able to determine during the operation.

On February 6, I made through the inferior punctum an injection of the sulphite of soda in solution, 1 to 200: from the following day, even, the secretion of the sac was entirely modified in respect to its plastic properties; it had lost its bad taste and fetid odor.

Treatment.—The choice of the treatment to be instituted in this particular case was very embarrassing. To adopt catheterization as performed by Bowman, or even with the aid of compression of the sac, was to undertake a mode of practice the issue of which seemed very doubtful, and which would require the patient to remain a long time at Strasbourg; to proceed to the obliteration of the sac was to have recourse at once to an operation which, in our opinion, should be reserved as a last resource, to be employed in despair when other means have failed. We decided to attempt a new method, and to excise a portion of the hypertrophied sac.

The 8th of February having been fixed for the operation, it was performed in the presence of our colleague and friend Dr. Munch.

The patient having been profoundly chloroformed, I incised with a small bistoury the skin which covered the tumor, to the extent of two centimetres and a half; the incision, commencing at the superior extremity of the tumor and immediately below the tendon of the orbicularis, was directed from above downwards and within outwards, following thus in a straight line the direction of the great axis of the tumor, and nearly also that of the muscular fibres of the orbicularis muscle.

The external integument having been divided, I separated with the point of the bistoury the fibres of the orbicularis, and came directly upon the sac; I dissected the tumor carefully on each side of the incision, at all points accessible to my instruments; the anterior wall was thus exposed below, as well as inwards as far as the orbital border, and above to a corresponding depth.

To facilitate this first part of the operation, I had previously injected water into the lachrymal sac, so as to distend it to the utmost; I had, moreover, introduced Anel's probe through the superior punctum. The sac having been cleared, I incised the anterior wall in its entire length, and in a direction parallel to the external incision; by the opening thus formed, there escaped a large quantity of thickened ropy mucus, intermingled with a little thin pus.

The walls of the sac were on their internal surface of a well marked slate-colored hue, and were considerably thickened.

Catheterization practised through the wound, with Bowman's probe No. 2, showed that the nasal canal was pervious in its entire length, except at its lower part, where there was a contraction of the membranous orifice, which, however, was easily overcome.

With scissors curved upon the flat, a part of the sac was now excised: two slips, nearly three millimetres wide in their middle portion and narrowed at their extremities, were thus removed from the sides of the incision. The bleeding, which was quite free during the operation, yielded quickly to sponging with cold water.

The interior of the sac and of the lachrymal passages was carefully cleansed by means of the solution of sulphite of soda, injected with Anel's syringe armed with a large-sized canula; then the wound was closed by means of three sutures, including upon each side the skin and walls of the sac. Lastly, the superior lachrymal canal was incised with a Weber's knife, to facilitate future catheterization. Cold applications were applied to the wound.

[The wound after uniting opened, but subsequently healed under the influence of injections of the sulphite of soda. The nasal duct was kept pervious by catheterization. On the eighteenth day the patient left the hospital with the wound completely healed. The husband of the patient injected the solution and catheterized the nasal duct at intervals for some time after she was discharged.—TRANSLATOR.]

March 21, 1867, I presented my patient to the Medical Society of Strasbourg. The report of the *séance*, after having given a résumé of the case, adds, "The members of the Society verify the absence of all deformity; the small cicatrix resulting from the operation is scarcely visible."*

[October 20, 1871, the patient was heard from by letter, and, as the disease had not returned, the cure remained complete.—It is unnecessary to give the particulars in the second case of the operator, which was equally successful in its results with that just narrated. —TRANSLATOR.]

Remarks.—One fact strikes us at once in the above cases,—viz., the rapid recovery. In the first case eighteen days sufficed to obtain a radical and permanent cure, and *with re-establishment of the natural passages*, of a lachrymal tumor of at least two years'

* *Gaz. Méd. de Strasbourg*, April 25, 1867, No. 8, p. 103.

standing and complicated with hypertrophic dilatation of the sac; in the second case the same result may be considered as having been obtained also in eighteen days, for the subsequent injections, which were continued a week longer, served only as an additional measure of precaution.

In regard to the operation to which we owe the above-narrated successes, it offers two interesting peculiarities to which we must direct attention: — 1st. As to the operative procedure, *we excised a part of the sac* which was notably thickened by hypertrophy of its connective tissue and epithelium; we thus succeeded in diminishing the volume and dimensions of the sac better and much more rapidly than could have been done by compression. 2d. In regard to the consecutive treatment, we had recourse to *injections of sulphite of soda*, which have the double advantage of stimulating the vitality of the tissues and of removing instantaneously the fetid odor of the matter secreted by the mucous membrane of the sac.

Partial excision of the sac is not absolutely a new operation; it has, however, very seldom been tried with the view of overcoming the dilatation of the sac.

Von Ammon is the only author, to our knowledge, who has published two cases *of cure of dilatation of the lachrymal sac* (dacryo-cystectasis of Hasner) *by the removal of a flap of its anterior wall.* These two cases are published in an article entitled "Ophthalmological Sketches," which appeared in 1851,* and which has been translated by M. Bénard, in the *Annales d' Oculistique* for 1852, vol. xxvii. We derive from the last-named work the account of the cases in question. [It is not thought necessary to give the details of these cases.—TRANSLATOR.]

Von Ammon performed these operations with the object, he said, of diminishing the cavity of the lachrymal sac, and of thereby increasing its contractility; by removing the anterior wall at the point where the mucous membrane formed folds, he moreover desired to prevent, or at least to diminish, the secretion of the morbid material which accumulated in the sac, by inducing, through the irritation caused by the introduction of suture-pins, a modification of the diseased mucous membrane."

For our part, we believe the Dresden ophthalmologist was right; but when he published his observations in 1851 he had changed his opinions upon this matter, adopting the ideas advanced the previous year by M. de Hasner in a work upon the "Physiology and Pathology of the Lachrymal Apparatus:"† he believes with the Prague professor that in *dacryo-cystectasis* or *mucocele* there was always found a partial obliteration of the calibre of the nasal canal, and that dilatation of the sac could only be made to disappear by rendering general the adhesion which was previously but partial. Von Ammon therefore considered it very probable that he owed his two successes to the complete or at least very general adhesion of the membrane lining the lachrymal sac,—adhesion due to the twisted suture of Dieffenbach, employed by him in his operations.

As the Dresden surgeon did not seek in any way to assure himself whether under these circumstances the natural outlets for the tears did or did not preserve their permeability, and as on the other hand partial excision of the sac was not followed by any treatment suited to prevent contraction of the nasal canal, it is difficult to determine in what manner the recovery was obtained,—whether the natural passages were re-established, or whether they were entirely obliterated.

Nevertheless, we should be strongly disposed to see in the first case related by Von Ammon a recovery with re-establishment of the natural passages, while, on the contrary, the second operation appears to have ended in occlusion of the sac: such at least is the impression we have from the account of the phenomena following the operation.

Mr. Critchett, in his "Lectures upon the Diseases of the Lachrymal Apparatus," says, in speaking of the treatment of lachrymal tumors where the sac is augmented in volume at the same time that its walls are hypertrophied, "Once or twice Mr. Bowman has found it well to remove, by dissection, the anterior wall of the sac: there is no objection to be made to this procedure save its tediousness and difficulty."‡

Our own observations, as well as those published by Von Ammon, are such as to show how little foundation there is for the objection advanced by Mr. Critchett against partial excision of the sac; this operation in reality presents nothing particularly tedious or difficult to execute.

To sum up, two cases published by Von Ammon, and one or two mentioned by Critchett as belonging to Bowman,—such is the list of partial excisions of the sac found in the annals of science previous to our own operations.

If we consult classical authors, we find that almost all are silent as to this operation; M. de Wecker, at most, merely mentions it in the second edition of his "Treatise on Diseases of the Eyes," vol. i. p. 896 (1868), to express his preference for compression aided by injections.

Mr. Critchett, after having recalled that Bowman had had recourse, once or twice, to partial excision of the sac, adds, "I have instead sometimes opened the sac freely, and applied to its interior the potassa cum calce, so as to destroy a considerable portion without injuring the skin."§

M. Warlomont, in the "Dictionnaire Encyclopédique des Sciences Médicales," says (in the article entitled "Surgical Pathology of the Lachrymal Passages"), in speaking of the treatment of *mucocele*, "If the sac be very much distended, *we may*, after having opened it, remove a portion with scissors."‖

It seems to us superfluous to remark that partial excision of the sac should not constitute a general procedure applicable to all forms of lachrymal tumor. The number of cases in which this mode of treatment can and should be practised is indeed so limited that in a period of five years we have had recourse to it but twice. In the course of the year 1871, we thought for a moment that we had to do with a case which would justify the operation of which we speak: there was a lachrymal tumor with relaxation and thickening of the walls of the sac and a diverticulum upon the orbital plate, but, the sac being opened, we perceived the mucous membrane covered with numerous granulations: this annoying complication, which we had not been able to foresee, rendered it evident that all efforts to re-establish the natural passages would fail; we did not hesitate to proceed at once to the obliteration of the sac by cauterization with pencils of Canquoin's paste. Partial excision of the sac, we believe, is not indicated, except in simple or hypertrophic *mucocele*, and especially in the latter any complication such as caries of the bony parts, or an incurable affection of the mucous membrane (for example, granulations), constitutes an insurmountable obstacle to the re-establishment of the natural passages, and calls for other treatment.

Let us also add that excision will not, in general, suffice in itself to cure a lachrymal tumor, and that it seems to us necessary to follow this operation by methodical cathe-

* Von Ammon, Ophthalmologischen Skizzen (*Deutsche Klinik*, 1851, No. 45; translated in *Annales d' Oculistique*, 1852, xxvii. p. 26).

† Von Hasner, Beiträge zur Physiologie und Pathologie des Thränenableitungsapparat, Prague, 1850.

‡ *Annales d' Oculistique*, 1861, tom. li. p. 214.

§ Loc. cit., p. 214.

‖ Dict. Encyclop. des Sciences Médicales, 2d sér., t. i. p. 59, 1868.

terization and by injections of the *sulphite of soda*. It is the union of these three therapeutic remedies which has procured for us the successes related above, and which constitutes the novelty of our mode of treatment. One word, finally, upon the use of the *sulphite of soda* in ocular therapeutics. This medicine acts at once as a disinfectant, an antiseptic, and as an alterative to the tissues, the vitality of which it arouses. The case which we reported in the beginning of this article demonstrates the utility of sulphite of soda injections in checking the morbid hypersecretion of the mucous membrane of the lachrymal sac, in modifying its nature, and in instantaneously removing from it all nauseating odor.

These same injections may be advantageously substituted for astringent injections in the treatment of different affections of the lachrymal passages. The solution of sulphite of soda, applied with a brush to the palpebral conjunctiva, has also rendered us good service in the treatment of *trachoma*.

In employing this as a topical remedy, we gradually increase the strength of the solution; as 1 gramme to 200 of distilled water, 1 to 100, 1 to 50, and even 1 to 30.

The conjunctiva painted with the solution 1 to 30 bleeds readily, if the application of the remedy be at all prolonged.

In other forms of disease than ophthalmic, the sulphite of soda, in solution or in ointment, also gives excellent results whenever it is necessary to excite the vitality of the tissues threatened with mortification, as in carbuncle, wounds of an unhealthy character, atonic ulcers, etc.

Treatment of Pernicious Malarial Fever.—In the *Southern Medical Record* for May, 1873, Dr. Benj. Rhett, of South Carolina, has a paper upon Congestive Malarial Fever, in which he says, "In most cases of fever, intermittent or remittent, twenty grains of quinia, administered during the intermission or remission, are sufficient to arrest the next paroxysm. But the same quantity, twenty grains, administered during a paroxysm, has no control over that paroxysm, either during the cold or hot stage, but exercises its influence, if it has any effect at all, on the succeeding paroxysm. Indeed, the febrile symptoms are aggravated by giving quinia during the paroxysm.

"Suppose, now, we administer during the paroxysm, either during the cold or hot stage: ℞ Morphia, gr. ¼; chloroform, teaspoonful; camphor, gr. ii, and repeat if necessary—the effect of the remedy is not only to *abort the chill*, but to *shorten the febrile paroxysm* by several hours. The same remedy administered previous to the hour of chill will sometimes postpone the attack several hours, and sometimes prevent it altogether."

He also reports several cases, of one of which he writes as follows:

"I arrived about five o'clock in the afternoon, and found him in the following condition: His surface pale, with cool extremities and cold nose; features pinched, and finger-nails blue; the pupils of his eyes contracted to the size of a pin's head, and little sensible to variations of light. Soon the surface grew warmer, but the face, especially the nose and lips, became purple with venous congestion; the surface was soon bathed in profuse perspiration; the skin of the hands and feet became shrivelled, the nails being of a purple color,—the semi-comatose condition continuing. His breathing was embarrassed and stertorous, and there was considerable difficulty in swallowing. When partially roused to take medicine, his face had a wild, stupid glare, and he would relapse again into stupor with the spoon in his mouth. Having neither chloroform nor camphor with me, I administered one-fourth of a grain of morphia and twenty drops of turpentine every hour, plunged his feet into warm water, placed sinapisms upon legs, thighs, and arms, and hot flannels, with turpentine, around the abdomen, and gave turpentine enemata. When chloroform and camphor were obtained, he took, every two hours—morphia, gr. ¼; chloroform, teaspoonful; camphor, gr. ii. This treatment was persevered in from five o'clock in the afternoon of the 13th of July to seven o'clock A.M. of the 14th, when there was a return to consciousness,—a subsidence of stupor. A flow of urine, which had been suppressed, took place, and a subsidence of fever occurred. Quinia was given in full doses, and the patient soon rallied."

How to Test Milk.—To prove the properties of milk, certain tests are useful. Those of Vogel are explicit and concise, viz.:

1. Fill a graduated galactometer with milk, let it stand covered for twenty-four hours, then the cream should at least comprise three lines of the glass in thickness.
2. Test with blue and yellow paper.
3. Taste, which should be insipid and slightly sweet.
4. The microscope.

"If nurse has been confined more than eight days, colostrum corpuscles and epithelial cells should not be present at all, or in small quantities, milk-globules of unequal size or too many." "In pure milk," says M. Donne, "nothing but milk-globules are seen." The same writer also shows human milk to be alkaline. I have not been able to find any reported case of acidity in human milk.

Unhealthy milk may be inferred from its scarcity of cream, change in color and taste, generally slight, but principally from microscopic examinations.

In 1853 Vogel first discovered vibriones in human milk. There was no fermentation, as the milk was alkaline. The child had all the appearances produced by malnutrition. From 1854 to 1861, Dr. Gibb, in an examination of many hundred specimens, found two genera of animalcula in the milk of women in whom the general health was disordered during lactation, or in whom lactation was prolonged or an insufficient quantity of milk secreted. He also found, in all periods of lactation, milk varying in color, sp. gr. 1024 to 1035, and almost invariably neutral or alkaline. The children, as a rule, were badly nourished. The doctor believes that the vibriones themselves are not hurtful, but produce a bad change in the milk. Inflammatory globules have been found by Lehman and others, when there was any acute affection in the mother. Vernois and Becquerel found "an excess of butter or caseine always to accompany an ill state of the nursling."—*Walker: The Sanitarian.*

The *German Pharmacopœia* gives an excellent test for the genuineness of raspberry syrup. If one volume of the latter be mixed with half a volume of pure nitric acid (25 per cent.), the fine red color of the syrup must not change to yellow, otherwise the syrup owes its color to some dyestuff which has nothing to do with raspberry fruits. A syrup which contains only a small quantity of artificial coloring-matter remained twenty-four hours unchanged, and only after this time showed a yellow color; while genuine syrup, when treated with nitric acid, even after three days' standing, showed no change of color. It is indispensable that the experimenter should be very careful as to the measurement of the volumes. Dr. Hager states, besides, that syrup colored with aniline becomes colorless when treated in this manner with nitric acid.—*Chemist and Druggist.*

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

All communications must bear the name of the sender (whether the name is to be published or not), and should be addressed to Editor Philadelphia Medical Times, care of the Publishers.

PUBLISHED EVERY SATURDAY BY
J. B. LIPPINCOTT & CO.,
715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

SATURDAY, JUNE 14, 1873.

EDITORIAL.

PHILADELPHIA HOSPITAL.

A MOST extraordinary discussion occurred a few weeks ago at the meeting of the Social Science Association of this city, which, as it concerns our largest hospital, is of interest to the profession. The occasion was the reading of a paper by a member of the governing board of the Philadelphia Almshouse, in which he demonstrated or asserted the existence, at that institution, of a state of affairs which is simply shocking.

The insane department he described as a vast hostel, in whose wards and corridors the insane are herded together,—the gay and melancholy, the timid and violent, the quiet and noisy,—until from the intermingling of such elements arise a constant noise, excitement, quarrelling, and collision, utterly preventive of recovery or comfort. Moreover, shut up at night by themselves, three in a room six by ten feet, these unfortunate victims of Philadelphia philanthropy are left to prey upon one another, so that, with Dr. Ray, we wonder that "homicide does not occur every night in the year:" in truth, twice within the last few months it has been prevented by the merest accident. Surely we have need of a John Howard among us, if indeed the venerable author of the paper in question be not such a one. We do not propose to devote much space to the consideration of the insane department of the Philadelphia Almshouse. According to the showing of Dr. Isaac Ray, it is but a lazar-house,—a place of confinement, where the city of Philadelphia, too careless, or too penurious, to properly provide for and take medical care of its insane poor, condemns them to perpetual imprisonment. This is the picture that a man who is at once one of the governing board of the institution, and the highest authority in America upon insanity, draws of its corridors. He says, "There can be few more pitiable spectacles than that witnessed there every day, of hundreds of men overcharged with nervous excitement, whose restless movements are confined to the limits of a narrow hall, and of as many more, silent and depressed, crouching down in corners and by-places,—all of them worrying one another, and speedily losing from sheer inaction whatever of mind their disease may have left. To continue this crowding together of the insane, as is still done at Blockley, is simply to perpetrate a great crime against humanity. To ignore the fact and to be reckless of the consequences, is no better, in point of morals, than it would be for a railway company to use a bridge after it had been pronounced defective and dangerous."

The organization of the Philadelphia Almshouse is a simple one. A chief or steward rules absolutely, under the board of guardians, over the whole institution, which is divided into a number of departments, of which the hospital constitutes one, and the insane asylum another. The hospital is under no general government except that of the Hospital Committee and of the steward. The Hospital Committee, composed of men engaged in active business and living miles away from the institution, does all that can be expected of such a body; which, so far as the discipline and daily running of the hospital are concerned, is simply nothing. Auditing accounts, appointing nurses, listening to grievances, and similar general duties, fully occupy the two or three hours of their weekly meeting. The steward has so many duties to attend to in superintending the whole almshouse, that it seems impossible for him to pay especial attention to any one department; and in the past we know that he has very rarely visited the hospital, and has exercised no personal supervision over its daily life.

The astounding fact is but too apparent, that to a hospital of nearly one thousand beds there is no head. Seven or eight nurses, men worth only thirty dollars a month, ruling their wards as best becomes their sense of dignity and right; twelve resident physicians gathered annually from the city and country, and, as a matter of course, some of them men of great ability, some of them men of great stupidity, all of them fresh with the exceeding freshness of

newly-fledged American graduates, generation after generation of them living in open customary violation of the printed rules of the house; nurses and resident physicians *nominally* responsible to twelve visiting physicians who are required to visit the wards only three times a week and are therefore only in truth consultants, *practically* responsible to no one but their own wayward fancies:—such, reader, are the real daily governors of the Philadelphia Hospital. Is it a wonder that one of the guardians of the poor publicly charged and apparently demonstrated that, during the last fever epidemic, men entering the hospital were lost as the wanderer is lost in the vortex of London, no trace remaining, no sign upon the books to tell whether they had died or lived? Is it a wonder that discipline is so loose, if indeed it exist at all?

Who is to blame for this state of affairs? Evidently, no one. Like Topsy, "it has growed." Like some monster, the institution has suffered from arrest of development, while it has continued to expand in bulk. If the responsibility rests anywhere, it is with the Philadelphia medical press, which has failed to raise its voice upon the subject. The evils which have been alluded to are but a fraction of what exist; and we propose, in the next few weeks, to examine closely the Hospital Department, its organization, its executive management, and see how nearly it approximates to the standard that is demanded by modern civilization and charity.

ETHER VERSUS CHLOROFORM.

IN a recent clinical lecture in the *British Medical Journal*, Dr. Jonathan Hutchinson writes decidedly in favor of the use of ether as an anæsthetic in ordinary cases. He, however, claims that in old people chloroform is the safer, and details a case of coma continuing for hours, and finally proving fatal, in a gentleman eighty-four years of age, to whom he had administered ether. As the kidneys were found at the autopsy in an advanced condition of granular degeneration, the question arises, Was not the coma really of uræmic origin? and when it is noted that death did not occur for forty hours after the suspension of the ether, which was only inhaled for twenty minutes, and that there were during this time repeated convulsive paroxysms and twitchings of various muscles, the natural answer to the question seems to us—Yes. It is quite refreshing to see the light of our American science breaking through the prejudices of the English profession; but we think Dr. Hutchinson's preference for chloroform over ether in old persons has no better foundation than had the complete condemnation of the latter anæsthetic so universal in Great Britain a year or so since.

THERE has recently appeared in Paris a curious book,—a veritable encyclopædia of an art most interesting to lovers of hygiene. It is a posthumous Gastronomic Dictionary, by Alexandre Dumas, in which the recipes are piled up from A to Z, and interlarded with amusing anecdotes told in a manner worthy of a Gascon. In it the inquiring mind may find recipes for all things to be cooked, from a swallow's nest to escargots, from beefsteaks to elephants' feet. If it were possible by means of any dictionary to recover upon this continent the lost art of cookery, we should earnestly pray for a translator. What philanthropist will furnish copies to our hospitals?

WE have felt exceedingly honored by the promptness with which our learned cotemporary the *Journal of Materia Medica* copied the article on digitalis in one of our late issues. While, however, we admire the enterprise of the aforesaid journal, an acknowledgment by it of the source from which the article was obtained would have been more in accordance with our taste. *De gustibus non est disputandum.*

WE desire to correct a slight error in our report of the Proceedings of the American Medical Association. The name of the third vice-president elected should read Dr. N. C. Husted, of New York City, instead of W. C. Husted, of Missouri.

CORRESPONDENCE.

May 29, 1873.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—The leading article, on *Life Insurance*, in the *Philadelphia Medical Times* of May 17, had escaped my attention until the remark was made to me, "That was a good article of yours in last week's *Medical Times*." The article does not strike me as a very good one. It is, certainly, not such an article as I wish to have attributed to me, either for my own credit with a single reader, or for the influence which my supposed opinion may have with any one.

I do not pretend to find fault with the language or spirit of the article; and of course take pleasure in according with all that is said in regard to the importance of having competent and well-paid medical officers, and as to the care with which examinations and inquiries should be made, etc., etc. There is nothing new, or peculiar, or which is not familiar to every good

life-insurance examiner and manager, in all that is said in regard to the independence, honesty, and technical qualifications which are so much needed, in both classes of officers, for the proper conduct of the business. Unfortunately, there is nothing new, either, in the other views expressed, since we read them in the newspapers, meet them more or less in the courts, and hear them too often announced in ordinary conversation. But the prevalence of these one-sided notions, and confusion of ideas, is the reason that induces me, as it might any old life-insurance examiner and adviser, to repudiate and protest against them.

I have neither time nor inclination to discuss the general question, or the many and various particular questions, involved in the study of life-insurance examinations—especially in their business and legal aspects. Nor am I much disposed to dwell upon the provoking muddle in which the writer of your leading article has involved his topic by his inconsequent propositions and assumptions. I must, however, express an absence of faith in his doctrine of unconditional liability. I cannot see how it facilitates a practical approach to what he calls the "selection of the fittest," or affords the slightest tenable reason why swindling in life-insurance contracts ought to be more free and successful than false pretence action in any other bona fide business operation, or how so blind a rule of conduct can do anything but harm to the general interests concerned. I do not believe in his assertion as to the peculiar nature of the bargain which renders this kind of contract unlike all others in the risk which it assumes against the insurer and in behalf of the insured; so that "when once a risk is underwritten the responsibility is assumed, and there is no escape."

The last word is the key, I fear, to the whole paper. Just a whisper of the popular hue and cry! "No escape"—from what? No respectable office wants or tries to "escape" from an ordinary loss. Such losses form a necessary and perfectly natural part of the habitual experience. Every respectable office wants and tries to "escape" from *fraud* in the making of its contracts; and equally wants, but rarely tries, to "escape" from the *consequences of fraud*, in the fulfilment of its contracts. The obligation to resist intentional deception, at all times, is as strong on the part of the company as it is on that of the claimant; but the effort to escape in case of fraud is rarely made by companies, simply because the disposition is always to give the benefit of the doubt, as to the fact of fraud, to the beneficiaries of the policy; and because the effort to escape often fails and too often threatens to cost as much as the policy itself. "Examiner and applicant are alike human," as our friend has it; both have been mistaken, only,—neither deceived or deceiving,—and so the company pockets the loss from the rogues for the sake of peace and good will among honest men; and, especially in mutual offices, at the expense of honest men. The treasury is to be robbed by the successful cheat, not because of his cheating, but because the examiner has failed to prevent him from cheating.

No well-regulated insurance office will admit that "there are but two subjects of inquiry before the payment of a loss,—the *identity* and the *death*." They all know very well that no such absurdity would keep a company together long enough to make many, even of these sometimes difficult subjects of inquiry, possible.* There is quite as much reason for "holding," in a question between a horse-jockey and his victim as to compensation for a horse, that description and guarantee are nothing,—"the only subjects of inquiry" being the identity of the horse and the transfer of the horse. He might be a runaway, hopelessly unsound, or radically vicious. You have bought him on conditions and under certain representations; but, having once "accepted" him, you are bound to pay for him, whether dead or alive, or kicking. The average horse is good and safe and young enough; and you were therefore bound to ascertain, without regard to warrants and descriptions, that he was *not* an average horse before you took him. No one doubts the force of obligation in this lower order of bargaining. Why should there be any less in the higher and more sacred aims and objects of a life-insurance negotiation? The difference is manifestly in the vastly greater importance of care and honesty in attention to the preliminary steps of both parties to the agreement—which is fully recognized by life-insurance companies; and of a strict adherence to terms—which is often waived by the companies in favor of the insured before death, and of the beneficiaries after death.

If the applicants for life-insurance were obliged to register their inherited and other infirmities, diseases, and known liabilities to disease from any cause, as mortgages are registered in the deed-recorder's office, we might, perhaps, substitute searches and briefs of title for written answers to the standing questions; and might, with some greater show of reason, be held—without regard to conditional *history*—as tightly to the consequences as the mortgagor or purchaser of landed property.

But men and women are not so easily surveyed and described, and judged of, as lands, or even houses, or so easily watched, even for the superficial view alone obtainable; nor can their years be told by their teeth so nearly as age is in the horse. Being without these material resources; being, in fact, only mortal in our lack of "perfection and prescience," we naturally fall back upon the practical and inalienable method of dealing with human beings which has governed the world in its business intercourse since the days of Jacob, if not those of Adam. This is what common sense demands, and what our courts require, as the only safeguard for all parties to a bargain.

Life-insurance may be "founded upon absolute certainty, in the death of *all* the assured," but the certainty is in the fact that the "death of all the assured" *cannot possibly occur at any one time.* This difference in

* The West case, in Dover, Delaware, and the Goss case, in Baltimore, Maryland, are the latest illustrations of this difficulty as to identity and death.

time must depend, in the vast majority of cases, upon the varying circumstances of these separate cases. These circumstances, the average influence of which has been long established by indisputable authority, can never be fairly known and judged of without the statements and testimonials of the applicant and his recommenders; and, hence, such stipulated data must be truthful, and so required and agreed to, as the only sure basis of insurance.

It is the well-recognized duty of the medical examiner of the applicant for insurance, and of the medical adviser who has the determination of the risk, to elicit as full and fair an account of the true tendencies and condition, inherited and acquired, of said applicant, as may be practicable; and to advise or object to the acceptance of the risk in accordance with the information thus obtained. They must do this with the clear understanding that nothing but palpable misrepresentation can vitiate that basis of acceptance, and that no forfeiture can follow except through violation of express terms in the policy with which the examiner and adviser have nothing to do. But the necessity for good faith on the part of the applicant under any kind of personal inquiry on the part of the examiner, and in keeping his engagements, is at least as absolute as the obligation to good faith on the part of the company in maintaining the insurance.

The proper physical examination of the applicant is of great importance, certainly,—a *sine qua non*, of course. But can that examination be conclusive without a previous history? Can the history be complete without a family record? Who is to give the history, personal and family, but the applicant and his medical, or other, sponsor, whom he is required to call upon to testify to the previous circumstances—which are necessarily beyond the personal ken of the examiner? And how are these things to be done except through questions and answers, written and oral? The list of printed questions must, of course, seem strangely, absurdly, long and complicated to an inexperienced reader. No well-trained life-insurance examiner need be told that they must be so, in order to include the great variety of cases, incidents, and contingencies; that they are based, not upon theory, but upon long practical experience with the work of investigation, and with its peculiar requirements and difficulties, in the true interests of all rightful parties in the matter.

Shall we then allow so much laborious and painfully minute inquiry after bona fide data—for experience no less than for protection—to be set at naught by a thoughtless prejudice which, whether intentionally or not, could only aid the rogues and mislead the honest men? Must we quietly submit to the assumption that the object and results of all this care must be regarded as little more than pretence and form—surplusage, if not trickery, as to any practical purpose? There is no answer to this view of the argument in the claims of the beneficiaries. Nor is there any in the circumlocution about the waiting for better information and for other proper modes of dealing with the doubtful cases, the selection of officers to "protect the assurers and the assured," and such other truisms and commonplaces, with which your contributor would reconcile his readers to the Utopian idea of absolute security—upon the claimant's side. The greatest care and skill, and the most disinterested and deliberate judgment,—the highest qualifications, in short,—were they obtainable in every case, would have a poor chance, on one side, against dishonesty on the other.

One of the difficulties in collecting information, even for experience purposes, is well illustrated by the writer's remark in regard to a very natural inquiry as to the character of a vaccination in the case of an insured person who had died of smallpox, that it looked "very much like an attempt at quibbling, not at all compatible with the dignity of a great company." So, as to the view that "some" of the questions "which are sent to physicians to answer," in relation to the decease of a policy-holder, "indicate a disposition on the part of the companies to get rid, if possible, of their obligations." This I deny positively as to the company which has been at least twenty-six years under my observation, and I doubt it greatly as to others. The ruling desire is, carefully to avoid the indication of a disposition which there is very little reason to charge them with, notwithstanding newspaper assertions to the contrary. I do not mean to defend the want of courtesy, the rather inquisitorial style, the not very convenient arrangement, and the inexplicit language of these post-mortem interrogatories; such as I have thus far seen at least, savoring, as they do, too much of magisterial dictation; and, while acknowledging no responsibility for these defects, I believe them to be unintentional, and have good reason to hope for improvement in the future.

One thing is very evident in this matter of medical certificates. They should be well paid for when they are good for anything. As they are often very important, however defective, it is probably the best policy to pay well for them, whether good or bad. Being required by the company, they must be procured as legal papers, *by and through* the parties interested in the policies; but it will always be to the interest of a company to bear the expense of a decent fee for such a certificate—as for every kind of medical certificate—not for the purpose of litigation, which is rarely desirable or thought of, or for any merely detective purpose, which is not respectable; but for the vastly more important uses of the experience record.

These questions of life-insurance settlement, however, are not within the jurisdiction of the medical examiner. They are questions of law and equity, to be settled by the courts of justice. But no member of the medical profession should undertake the duty of an adviser in such matters without a clear idea of his whole responsibility as an expert, and of his liability as a witness, in giving his professional estimate of the importance of the scientific data on which the insurers and insured may have agreed to act.

Very respectfully,

EDWARD HARTSHORNE.

PROCEEDINGS OF SOCIETIES.

PROCEEDINGS OF THE OBSTETRICAL SOCIETY.

THURSDAY, JUNE 5, 1873.

SOCIETY convened at a quarter after eight o'clock P.M.

The minutes of the previous meeting were read, and, without remark, stood approved.

Dr. RICHARD THOMAS was then introduced as a new member to the Society.

Two specimens of *hydrops fallopii* were shown by the Secretary, Dr. INGHAM. They were without available history, and in his brief comments he stated that he showed them not so much as rare or uncommon specimens, as to illustrate their dissimilarity. In one, the cyst was entirely free from any signs of surrounding inflammation, while the other was bound down to the walls of the uterus by perimetritic inflammation. The points suggested as presenting interest were: could they have been diagnosed by the introduction of the fingers into the rectum, and, if recognized, whether puncture should have been made for relief.

He also presented a third specimen of a large *fibroid tumor* (size of a large orange) *of the uterus*, seated upon its posterior wall, with two small ones within the walls. No history of the case was offered. The patient died of an intercurrent disease, and without the tumors being recognized.

Dr. JENKS alluded to the great difficulty in diagnosing fibroid and other growths when situated upon the posterior wall of the uterus, even since the discovery by Dr. Simon, of Heidelberg, that the rectum may readily be dilated to admit the whole hand.*

Dr. GOODELL called attention to Hildebrand's treatment of fibroid tumors by hypodermic injections of a solution of ergotine in glycerine. He knew personally of one case in which the tumor was materially reduced in size; another under the care of Dr. Barker, of New York, in which it disappeared entirely; another reported by Dr. Ashhurst diminished one-third in so short a time as three or four weeks. It is not very liable to produce abscesses at the point of injection, though these do sometimes follow. One objection is the intense pain which is produced, amounting in some cases to agony, and requiring drugs for its relief. Dr. Barker also recommends the administration of ergot by enemata and suppositories.

Dr. LUDLOW spoke of a case under his care, where an operation was meditated, but the tumor of late has been diminishing in size, under ergot internally; and of another case of a lady, who was seen by Dr. Hodge, where the tumor disappeared for five years and then returned.

Dr. JENKS stated, for the advantage of those who desired to experiment with the article, that a preparation has been made by Dr. Squibbs especially for hypodermic use, and is reliable.

Dr. GOODELL remarked that, as discoloration is sometimes produced at the point of injection, and is very slow in disappearing, a position should be selected which would not show. Dr. Hildebrand employed a point about the umbilicus.

Dr. LUDLOW objected to this locality, suggesting that peritonitis might result from a deep-seated abscess in this position, and proposed the gluteal region.

Dr. SMITH proposed injecting into the body of the tumor.

Dr. GOODELL stated "that as the theory on which it acts is reducing the nutrition of the tumor through the sympathetic system, no advantage is to be expected from injections into the growth itself."

A unique specimen of *twin embryo* was exhibited, having been forwarded to the Society by Dr. A. S. GERHARD, but without history accompanying.

Dr. SMITH said he had been informed by the doctor that the lady had had several miscarriages previously, and had been regular for months, the last menstrual flow having been very free and lasting several days.

She had passed the time for the next period, five days, when he was called and found an unusually excessive hemorrhage, coming on after some extra exertion on her part, her health having been previously good. On examination he found the cervix hard, rigid, and unyielding, and, after various other methods had failed, the hemorrhage was controlled by the tampon. On removing it, eight hours afterwards, and examining the clot which followed, the "twin embryo" was discovered, surrounded by the decidua, one the size of a hulled walnut, the other half as large again. Owing to the action of the preserving fluid, they are now somewhat smaller. The cause of abortion was, no doubt, dropsy of the amnion, as the sacs are distended to their natural size at the second month, while, from the history of the case, she could not have been more than three or four weeks gone.

Dr. JENKS made some extended remarks upon early ova: for the first five or six days it was supposed to be passing along the fallopian tube (in the bitch accurately ascertained to be ten or twelve days), but in only one case has it been pretended to have been found in the human fallopian tube, and the observations of that case were so imperfectly made that most probably something else was mistaken for it. He considered the observations of Dr. Allan Thompson on the three specimens examined by him at what he supposed to be the tenth, fifteenth, and twenty-first days, with the peculiar changes and developments from one period to the next, desiring that it should be remembered that these were all abortions or pathological specimens, and not the ovum in its natural and normal development. On a hasty examination in the present case, we notice the dorsal plates to be closed, the abdominal plates closed, allantoic membrane formed, eyes formed, ears indicated, upper and lower extremities just budding, as it were. In all probability it is from twenty-five to twenty-eight days old. It is the *first case of twin embryo* reported at so early a period, so far as I am aware.

The report of the committee on Dr. Beecher's case of congenital deficiency of the lower extremities was not read, the chairman of the committee not being present.

Dr. CATHCART exhibited a *carcinoma uteri* which had been treated, with great relief for a time, by scraping. Afterwards the cervix was removed at the suggestion of Dr. PARRY, who remarked to the Society that "the case was peculiar, insomuch as it had involved to so great a degree the body of the uterus, and as connected with a statement made by a German writer some two years ago, that uræmia resulting from hydronephrosis was the frequent cause of death in cancer of the uterus. Here we had a dilated ureter, with absorption of a portion of the kidney, but on close examination it was found that the obstruction was not due to extension of cancer, but to surrounding pelvic peritonitis."

* As some of our readers may not have seen the paper of Dr. Simon in the *American Journal of Obstetrics*, February, 1873, it may be well to state that he claims that the whole hand may be so introduced into the large intestine that physical explorations may be made of the lower two-thirds of the abdomen. A person with a hand having a circumference of over ten inches cannot do this; but when the hand is small, by folding it into a cone and oiling it, it can be readily introduced, the patient being in a state of anæsthesia.—ED. *M. T.*

DEATH FROM THE ANTISEPTIC USE OF CARBOLIC ACID (*British Medical Journal*, March 1, 1873).—David I. Hamilton details a case of death occurring in a child four and a half years old, from absorption of carbolic acid by a wound four inches long.

GLEANINGS FROM OUR EXCHANGES.

ON CANINE MADNESS.—In a paper on the above subject (*British Medical Journal*, March 8), Dr. E. P. Philpots writes as follows concerning the diagnosis of true and false madness in dogs:

HYDROPHOBIA.	DISTEMPER-MADNESS.
Definition.—A fatal form of madness communicable from the lower animals to man; characterized (as the name denotes) by an intense dread of water.	*Definition.*—A form of rabid madness non-communicable to man; characterized by foaming at the mouth, impairment of deglutition, and a desire to vomit.
Synonyms.—None.	*Synonyms.*—Rabies.
Premonitory Symptoms.—Begin two days beforehand, loss of spirits, loss of appetite, general depression.	*Premonitory Symptoms.*—Loss of appetite, and slight husking in the throat.
General Appearance during the Attack.—When let alone, the dog lies sullenly as if "out of sorts" and depressed, notices little, but recognizes his master by wagging his tail. Violently insane only on the approximation of water.	*General Appearance during the Attack.*—The dog bites at any of its fellows, gnaws at his bed, or the wall, eats straw, snaps at his attendant.
Fits.—Absent.	*Fits.*—Present in a marked degree, in most cases.
Foam at the Lips.—Absent.	*Foam at the Lips.*—Very much; the dog leaves it on the surface of the water he vainly tries to drink (the foam is caused by futile efforts to drink or swallow).
Water.—Sprinkled over or near him, causes violent convulsions.	*Water.*—Has no effect upon him.
Thirst.—Absent.	*Thirst.*—Intense, insatiable.
Desire for Water.—Absent on account of dread.	*Desire for Water.*—Very great.
Appearance of Eyes.—Dull or heavy.	*Appearance of Eyes.*—Dull, and green in their reflection.
Howling and Barking.—Absent.	*Howling and Barking.*—Present.
Muscular Affection of the Throat causing Inability to Swallow anything.—Absent, or not observable.	*Muscular Affection of the Throat causing Inability to Swallow anything.*—Well marked.
Causes.—None.	*Causes.*—Inflammatory action internally pervading the system.
Prognosis.—Very bad, always fatal, no chance of recovery.	*Prognosis.*—Good, or bad, according to the severity of the fits.
Terminations.—The symptoms do not vary to any great extent towards the termination.	*Terminations.*—A fit.
Pathology.—Intense inflammation of the brain extending to the throat and lungs.	*Pathology.*—Inflammation of the brain, often extending to the throat, the lungs, and the intestines.
Prophylactic Treatment.—None.	*Prophylactic Treatment.*—Vaccination is a certain preventive.

It will be noticed by this table that in hydrophobia there is a dread of water, and in distemper-madness there is a longing for it. In the latter disease, there is a spasm of the œsophagus which the dog tries to overcome by futile efforts to vomit.

The premonitory symptom of hydrophobia is a sullen depression; in distemper-madness the throat-symptoms are first observable. Regarding the general appearance during the attack; the hydrophobic dog is a sullen animal, merely appears much "out of humor," and is only actually mad on the approach of water; but in distemper-madness the animal really *is* mad in every sense of the term. He bites, and gnaws, and snaps, and chews anything that he thinks will cause him to vomit. The hydrophobic dog has *no* fits (except on the approach of water), and he does not foam at the mouth; but with the dog mad with distemper there is a succession of fits, one of which may end his life; his saliva, some of it of a frothy nature (foam), dribbles, and exudes from his mouth, and water sprinkled over him has no effect upon him. The hydrophobic dog hates the sound, the sight, the thought, of water, and will fly from it madly; but the dog mad of distemper rushes to it to assuage his thirst, but this he cannot do, as spasm of the œsophagus will not allow his swallowing. The hydrophobic dog's eyes are "fishy," dull, and sullen-looking; the dog ill of distemper-madness has bright, green, and savage-looking eyes, and he howls and barks. Dogs never recover from hydrophobia, but they do from distemper-madness, if the fits be not severe. Vaccination does not prevent hydrophobia, but it does distemper-madness.

LACTIC ACID IN DIABETES.—In the *British Medical Journal* of March 8, Dr. I. W. Ogle reports two cases of saccharine diabetes treated with lactic acid, and remarks upon them as follows:

In Case No. 1, which was under care for seven weeks, no marked diminution of urine, and no change in the specific gravity, were noticed; but after the long use of the lactic acid, and possibly in consequence of it, great constipation came on, requiring active aperients. The weight fell from 8st. 5lbs. to 7st. 7lbs. The temperature was chiefly *above the normal;* on one occasion only being below, and then it was 97.4 deg. Fahr.; on one occasion it reached 102.8 deg. Fahr. No pain and no excess of perspiration existed during treatment.

In Case No. 2, which was under treatment for eleven weeks before the lactic acid was given, the urine ranged in quantity between 112 and 178 ounces a day; after the use of the acid the quantity quickly diminished, and throughout its use fluctuated between 40 and 70 ounces a day, on one occasion being as low as 30 ounces. During all this period the specific gravity remained much the same as when the patient came to the hospital. The weight fell from 7st. 3lbs. to 6st. 8lbs. The temperature was almost always *below the normal*, being for the most part below 98 deg. Fahr. Neither the morning nor the evening temperature was uniformly above or below the other.

In neither Case 1 or 2 was there any indication of interference with, or affection of, the nervous system; power of movement of the entire muscular system, and sensibility, both general and of particular organs, being unaffected. In neither case was there albumen or excess of uric in the urine, nor did rheumatic pains or excess of perspiration ensue; and in neither was there any decided lung-mischief, though in Case 2 there was a degree of harshness of respiration.

As regards the results of treatment, it did not appear that in these cases any real benefit arose from the administration of the lactic acid.

DEATH DURING ETHERIZATION.—In the *Boston Medical and Surgical Journal* of May 29, Dr. Cabot reports the following:

"An old man, weak, but not excessively so, had undergone an operation which lasted three-quarters of an hour. He was removed from the operating-room, and the usual orders to watch him were given. Five hours afterwards he had a violent attack of dyspnœa, and died. Food was found in one of the bronchial tubes.

"He also referred to a similar case which had occurred some time ago. A fat woman, while lying on her back under ether, vomited, and some of the vomit getting into the trachea killed her."

MISCELLANY.

THE MILK OF HUMAN KINDNESS.—The history of the great saving of life now effected in the transport of government convicts and of emigrants is so striking and so simple that it cannot be too often recalled to mind. At the commencement of the transport service of convicts, and, indeed, of emigrant passengers, the loss of life was terrible: an epidemic broke out, and a third, and, in one instance, nearly half, were thrown overboard before arrival. And yet there was nobody to punish. The skippers did not intend to kill the passengers, but

they wanted room for cargo, they did not think of the results, and so there was overcrowding,—sanitary science and ventilation being then unknown. At last some unknown civil servant got an alteration made—only one—in the terms of the contract, from payment per head on the number embarked, to payment per head on the number landed alive. Under this condition the whole state of things was changed. The skippers of their own motion got medical officers, and paid them for results. Sanitary science gleamed on these voyages. The skippers listened eagerly, and adopted zealously any suggestions made for improvement. They were their own inspectors, and they wanted no regulations. The work of benevolence was done without benevolence. For every poor lone passenger who happened to die during the voyage, one sincere mourner at the least was secured!—*British Medical Journal.*

A REMARKABLE COUNTY.—The Medical Society of the State of New York has recently made it obligatory on the part of every county society to examine all gentlemen intending to study medicine, and give them a certificate of their fitness. How far this provision is carried out we are not able to say. We know of two *counties* in the State who (*sic*) make it a regular practice, one of which is the *Ulster County Medical Society* (!). We were present at the last monthly meeting of this body, and witnessed such an examination, which was remarkably thorough, and conducted by the committee with a determination to fulfil the full letter of the law.—*New York Medical Record.*

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM JUNE 3, 1873, TO JUNE 9, 1873, INCLUSIVE.

SMITH, A. K., SURGEON.—Assigned to duty as Chief Medical Officer, District of New Mexico. S. O. 84, Department of the Missouri, June 4, 1873.

ALEXANDER, C. T., SURGEON.—Relieved from duty in Department of the Missouri, to proceed to St. Louis, Missouri, and, on arrival, report by letter to the Surgeon-General. S. O. 113, A. G. O., June 5, 1873.

GRAY, C. C., SURGEON.—Assigned to duty as Post Surgeon at Fort Clark, Texas. S. O. 96, Department of Texas, May 26, 1873.

TOWN, F. L., SURGEON.—Granted leave of absence for thirty days, with condition to make satisfactory arrangement for medical attendance during his absence. S. O. 104, Department of the East, June 5, 1873.

FRYER, B. E., SURGEON.—Assigned to duty at Fort Wood, New York Harbor. S. O. 106, Department of the East, June 7, 1873.

GREENLEAF, CHARLES R., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Huntington, to comply with orders received from War Department. S. O. 60, Department of the Columbia, May 23, 1873.

HUNTINGTON, D. L., ASSISTANT-SURGEON.—Assigned to duty as Post Surgeon at Fort Lapevoi, Idaho Territory. S. O. 60, c. s., Department of the Columbia.

BREWER, JOHN W., ASSISTANT-SURGEON.—Assigned to temporary duty at Fort McHenry, Maryland. S. O. 106, c. s., Department of the East.

MILLER, G. MCC., ASSISTANT-SURGEON.—Relieved from duty in Department of the South, and ordered to Department of Arizona. S. O. 113, c. s., A. G. O.

KOERPER, E. A., ASSISTANT-SURGEON.—Granted leave of absence for thirty days. S. O. 112, A. G. O., June 4, 1873.

YEOMANS, A. A., ASSISTANT-SURGEON.—When relieved by Assistant-Surgeon Matthews, to comply with orders received from War Department. S. O. 106, c. s., Department of the East.

PATZKI, J. H., ASSISTANT-SURGEON.—Granted leave of absence for four months, with permission to go beyond sea. S. O. 115, A. G. O., June 7, 1873.

MATTHEWS, W., ASSISTANT-SURGEON.—Assigned to duty at Fort Sullivan, Maine. S. O. 106, c. s., Department of the East.

KING, WILLIAM H., ASSISTANT-SURGEON.—Relieved from duty in Department of the Missouri, and ordered to report to the Commanding General, Department of the South, for assignment. S. O. 113, c. s., A. G. O.

BYRNE, C. B., ASSISTANT-SURGEON.—Relieved from duty in Department of the Columbia, to proceed to Baltimore, Maryland, and, on arrival, report by letter to the Surgeon-General. S. O. 113, c. s., A. G. O.

WEEKLY RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FOR THE WEEK ENDING SATURDAY, JUNE 7, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Anæmia	1	...	Fever, Spotted	...	1
Apoplexy	1	...	" Typhoid	2	3
Asphyxia	...	1	" Typhus	1	...
Burns and Scalds	1	...	Fracture of the Skull	1	...
Cancer	3	...	" " Spine	1	...
" of Face	1	...	Gangrene	2	...
" Stomach	1	...	Hemorrhage	1	3
" Uterus	1	...	" from Lungs	2	...
Carbuncle	1	...	" Uterus	1	...
Casualties	4	1	Inanition	2	4
Catalepsy	1	...	Inflammation of Brain	...	12
Cerebro-Spinal Meningitis	2	14	" Bronchi	1	2
Child-Bed	1	...	" Kidneys	1	...
Cholera Infantum	...	4	" Larynx	...	1
Cirrhosis of Liver	1	...	" Lungs	5	4
Congestion of Brain	3	5	" Œsophagus	1	...
" Lungs	3	1	" Peritoneum	3	...
Consumption of Bowels	1	...	" Stomach & Bowels	3	3
" Lungs	55	6	" Uterus	1	...
Convulsions	...	17	Intemperance	2	...
Cramps	...	1	Jaundice	1	...
Croup	...	1	Marasmus	...	14
Cyanosis	...	1	Measles	...	1
Debility	12	15	Murder	2	...
Diarrhœa	...	1	Obstruction of Bowels	2	...
Diphtheria	...	1	Old Age	9	...
Disease of Brain	2	...	Paralysis	4	...
" Heart	12	...	Perforation of Stomach	1	...
" Hip	...	1	Poisoning	...	1
" Kidneys	3	...	Pyæmia	1	...
" Liver	1	...	Rheumatism	1	...
" Lungs	1	...	" of the Heart	...	1
Dropsy	5	2	Smallpox	...	1
" of Brain	...	3	Softening of Brain	1	13
" Chest	...	1	Still-Born	...	...
" Heart	1	...	Suicide	1	...
Drowned	2	2	Syphilis	1	1
Dysentery	...	1	Tabes Mesenterica	...	1
Effusion on Brain	...	1	Teething	...	1
Enlargement of Heart	1	...	Tetanus	...	1
Epilepsy	...	1	Tumors	2	...
Erysipelas	...	3	Ulceration of Rectum	1	...
Fatty Degene'n of Heart	1	...	" Stomach	1	
Fever, Brain	...	1			
" Catarrhal	...	1			
" Remittent	...	1			
" Scarlet	...	5			
TOTALS				180	160

METEOROLOGICAL OBSERVATIONS TAKEN AT THE SIGNAL OFFICE, PHILADELPHIA, DURING THE WEEK ENDING SATURDAY, JUNE 7, 1873.

Month and Day.	Barometer. Daily Mean	Thermom. Daily Mean	State of Weather.	Rain. In.
JUNE.				
Sunday 1st	30.29	63	Clear.	.....
Monday 2d	30.20	70	Fair.	.....
Tuesday 3d	30.16	61	Fair.	.....
Wednesday 4th	29.79	71	Fair, Cloudy.	.11
Thursday 5th	29.66	75	Fair.	.05
Friday 6th	29.80	71	Clear, Cloudy.	.....
Saturday 7th	29.97	68	Fair, Clear.	.....
Means	29.98	68	.....	.16

The surface of the cistern of Barometer is located 71.92 feet above the mean level of the sea.

Barometer corrected for temperature, elevation above sea, and instrumental error.